

## REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

In the Office Action dated July 19, 2006, the Examiner rejected claims 1-13, 40-53, and 79-87, under 35 U.S.C. §102(e), as allegedly being anticipated by Curet '624 (U.S. Patent No. 6,594,624); and rejected claims 14-39, 54-78, and 88-117, under 35 U.S.C. §103(a), as allegedly being unpatentable over Curet '624 in view of Braun '266 (U.S. Patent No. 6,341,266).

By this Amendment, independent claims 1, 40, and 79 have been amended to provide a clearer presentation of the claimed subject matter. Applicants submit that no new matter has been introduced. As such, claims 1-117 are currently presented for examination of which claims 1, 40, and 79 are independent and claims 118-330 have been withdrawn.

Applicant respectfully traverses the rejections, under 35 U.S.C. §102(e) and §103(a), for the following reasons:

### I. Prior Art Rejections Under §102(b) and §103(a).

As indicated above, amended independent claim 1 positively recites, *inter alia*, receiving at least one data set for each of a plurality of interconnected stages in which each of the plurality of stages have at least one option representing alternative requirement attributes of the corresponding stage. Claim 1 also positively recites that each data set corresponds to the option of the corresponding stage in which each data set includes a first cost and a second cost. Claim 1 further positively recites determining, based upon the at least one data set, an optimum series of options over a series of the stages by selecting a single option at each stage in the series of the stages that minimizes the sum of total costs over the series of the stages, wherein the total costs is a function of the at least one data set.

These features are amply supported by the embodiments disclosed in the written description. (*See, e.g.*, Original Specification: par. [0086] - [0089]; [0094]; [0176]-[0177]; [0215]- [0218]; FIGs. 1-3). For example, the disclosed embodiments provide models in which each stage has one or more options that can satisfy the stage's requirement attributes. That is, each stage has at least one requirement in order for the stage to perform its intended operation. In one example associated with supply chain assembly networks, a stage representing the procurement of raw goods has the option of relying on a multinational supplier or a local supplier for delivery of the goods. In this case, each of the options have two costs associated with it (*e.g.*, price and delivery time). (*See*, Original Specification: par. [0177]). As such, the options are *not* links or arcs interconnecting different stages or nodes – rather, the options are modeled as internal functions of the corresponding stage that have associated costs.

In contrast to the Examiner's assertions, none of the applied references, whether taken alone or in reasonable combination, teach each and every element of claim 1, including the features identified above. In particular, the primary reference, Curet '624 '255, is directed to the identification of all minimum-cost cutsets in a network to isolate one node in the network from another node. (*See*, Curet '624 '255: col. 4, lines 23-29).

As a preliminary matter, Applicants point out that the methodologies and teachings of Curet '624 are not related, whatsoever, to the claimed subject matter. That is, as artisans of ordinary skill will readily appreciate, the subject matter of Curet '624 focuses on methodologies that find, in an efficient manner, links and/or nodes that cost the least to cut out of the network, in order to isolate two user-selected nodes.

In so doing, Curet '624 simply has nothing to do with the determination, based upon the at least one data set, of an optimum series of options over a series of the stages by selecting a single option at each stage in the series of the stages that minimizes the sum of total costs over the series of the stages, as required by the claims. Thus, as will be evident by the reasons presented below, the application of the Curet '624 reference to render the present claims anticipated or unpatentable is either misguided or based on impermissible hindsight.

With this said, Applicants first submit that there is nothing in Curet '624 that remotely teaches or suggests the use of at least *one option representing alternative requirement attributes of the corresponding stage*, as required by claim 1. That is, in rejecting claim 1, the Examiner specifically asserted that the cutsets of Curet '624 include options for which path to traverse as well as costs associated with each node or stage. (See, Office Action: page 3, lines 1-3). It, therefore, appears that the Examiner has errantly construed the path traversals of Curet '624 as corresponding to the claimed options. However, as noted above, the claimed options are not links or arcs, nor do they otherwise denote transitions between stages. Rather, as clearly recited by the claim language and supported by the written description, options represent requirement attributes of each stage and have nothing to do, whatsoever, with transitions between stages or nodes.

Along similar lines, Curet '624 also fails to teach or suggest that each *data set corresponds to the option* of the corresponding stage in which each *data set includes a first cost and a second cost*, as required by claim 1. The Examiner asserted that a node's incoming cost (*i.e.*, the cost of the link inbound to the node) corresponds to the claimed first cost and that the node's outgoing cost (*i.e.*, the cost of the link outbound from the node) corresponds to the claimed second cost. (See, Office Action: page 3, lines 3-4). However, the claim language clearly recites that the data set with the first and second costs, corresponds to the option of the stage – *not* to the links or arcs into or out of the nodes.

Moreover, Curet '624 specifically teaches separately assigning one cost for each node and one cost for each link. (See, Curet '624: col. 4, lines 44-49). As such, there is no hint or suggestion in Curet '624 to have two costs ascribed to an individual node, as also required by claim 1.

In addition, Curet '624 further fails to teach or suggest *determining, based upon the at least one data set, an optimum series of options over a series of the stages by selecting a single option at each stage in the series of the stages that minimizes the sum of total costs* over the series of the stages, wherein the *total costs is a function of*

*the at least one data set.* The Examiner relied on the disclosure of Curet '624, which teaches determining the paths from a source node S to a termination node T in a modified network that maximizes the flow from node S to node T. (See, Office Action: page 3, lines 3-4)(see, also, Curet '624: col. 2, lines 60-64). However, in contrast to the Examiner's assertions, Curet '624 only teaches determining the *paths* that maximize the flow between two nodes. As such, Curet '624 has nothing to do with determining an optimum series of *stage options* that minimizes the sum of total costs, as required by claim 1.

Furthermore, claim 1 requires that the determination of the optimum series is based on the at least one data set and that the total costs to be minimized are a function of the at least one data set. The data set corresponds to the stage option and includes two costs associated with the option and, as discussed above, Curet '624 simply fails to teach both, the use of a stage option and two costs associated with each option. As such, Curet '624 also fails to teach the determination of the optimum series based on the at least one data set as well as the minimization of total costs in which the total costs are a function of the at least one data set.

Applicants submit that the remaining asserted reference, Braun '266, is incapable of curing the deficiencies of Curet '624 identified above. Thus, for at least these reasons, Applicant submits that none of the asserted references, whether taken alone or in reasonable combination, teach each and every element of claim 1. Claim 1 is, therefore, patentable. In addition, because claims 2-39 depend, either directly or indirectly, from claim 1, claims 2-39 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, the immediate withdrawal of the prior art rejections of claims 1-39 is respectfully requested.

Furthermore, because independent claims 40 and 79 recite similar patentable features as noted with respect to claim 1, claims 40 and 79 are patentable for at least the reasons presented with respect to claim 1. And, because claims 41-78 and claims 80-117 depend, either directly or indirectly, from independent claims 40 and 79, respectively, claims 41-78 and claims 80-117 are patentable at least by virtue of

dependency as well as for their additional recitations. Accordingly, the immediate withdrawal of the prior art rejections of claims 40-117 is respectfully requested.

II. Conclusion.

All matters having been addressed and in view of the foregoing, Applicants respectfully request the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of pending claims 1-117.

Applicant's Counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue in which the Examiner feels may be best resolved through a personal or telephone interview, please contact the Undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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